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# STUDIES

A Special Report Series by  
THE STATE CENTER FOR HEALTH AND ENVIRONMENTAL STATISTICS  
P.O. Box 29538, Raleigh, N.C. 27626-0538

No. 95

August 1995

## PREDICTORS OF INADEQUATE GESTATIONAL WEIGHT GAIN AMONG AFRICAN AMERICANS AND NON-HISPANIC WHITES

by

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### ABSTRACT

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Inadequate maternal weight gain during pregnancy is the second leading determinant of low birth weight in industrialized nations, preceded only by cigarette smoking. In this study, maternal sociodemographic, nutritional, behavioral, health services, and reproductive history risk factors were investigated as potential predictors of inadequate weight gain in a large ( $n=47,629$ ) population of low-income women who were underweight or normal weight prior to pregnancy, and who delivered full-term infants. Two outcomes were analyzed: gain of less than 15 pounds at term (very inadequate gain) and gain of at least 15 pounds but less than the minimum recommended for prepregnancy body mass (moderately inadequate gain).

Overall, 35.6 percent of African Americans and 25 percent of non-Hispanic whites had inadequate gain. The strongest predictor of poor gain for both race groups was short interbirth interval; the adjusted relative risk of very inadequate gain for women with birth intervals of 12 months or less was 1.5 (95% confidence interval (CI) 1.1-2.1) for African Americans and 2.2 (95% CI 1.4-3.4) for non-Hispanic whites, compared with primiparous women. Cigarette smoking, low education, and being unmarried were also important predictors of poor gain. Timing of entry into prenatal health services was not predictive of poor gain. Compared with normal weight women, underweight women were at lower risk of very inadequate gain but at higher risk of moderately inadequate gain.

Improved access to health services, including family planning, as well as nutrition education, greater food supplementation for high-risk women, and smoking cessation programs may help to reduce the prevalence of low birth weight by contributing to higher gestational weight gains.

### ACKNOWLEDGEMENTS

This study was supported in part by cooperative agreement No. U50/CCU403457 with the Division of Nutrition, Centers for Disease Control and Prevention, Atlanta, and in part by the North Carolina WIC Program. Dr. Bennett is with the Department of Maternal and Child Health, UNC School of Public Health. Dr. Barnett was supported by a Healthy People 2000 Data Initiative grant from the National Center for Health Statistics at the time of this study. The authors thank Alice Lenihan and Paul Buescher for helpful comments on an earlier draft of this paper.



NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES